

THE IDENTITY OF *ERYTHRONIUM BRACTEATUM*
(LILIACEAE)

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Whilst trying recently to account for all the epithets which have been published in the genus *Erythronium* I encountered the question of the identity of '*Erythronium bracteatum*' Bigelow. Homer D. House, in his Annotated List of the Ferns and Flowering Plants of New York State (1924) gives *E. bracteatum* as a synonym of *E. americanum* and, although I had no particular reason to doubt this opinion, I felt that a sight of the type specimen would be of interest, in view of this curious epithet in a genus which does not normally possess bracts on its inflorescences.

The entry in Index Kewensis for this epithet gives the author and place of publication as Bigelow in Beck, Bot. 365 = *albidum*. This refers to Lewis C. Beck, Botany of the Northern and Middle States (1833), and a check on page 365 reveals that the plant was collected on 'high mountains, Ver.' Beck did provide a description of the plant and attributed the name to Bigelow, but without a literature reference to Bigelow's involvement with the name. The obvious place to start a search for any such involvement was in Bigelow's Florula Bostoniensis. The first edition proved to be of no help but the second, published in 1824, revealed that the species was in fact validly published with Latin and English descriptions and a type citation; Bigelow acknowledged that Boott actually provided the name: 'discovered by Mr. Boott — — — and by him designated by the foregoing name.'

The full citation for the species is:

Erythronium bracteatum Boott ex Bigelow, Fl. Boston. ed. 2:136(1824). TYPE: USA, Vermont, Camel's Rump mountain, June, *Boott* (holotype K!).

Bigelow provides the following description: 'Leaves very unequal, the primary one being two or three times as large as the secondary. Scape shorter than the leaves with a narrow lanceolate bracte about an inch long, situated an inch or two below the flower. Corolla yellow, half as large as in the preceding species [ie. *E. americanum*], petals gibbous at base. Stamens half as long as the corolla. Style clavate; stigmas united?'

The description given by Beck is almost a straight repetition of that provided by Bigelow.

W. J. Hooker was also aware of this plant, although in *Flora Boreali-Americana* 2:182(1839) he gives no real indication that he knew of the earlier work by Bigelow, in spite of the fact that the Kew Library copy of the *Florula Bostoniensis* was donated to 'Professor Hooker—with the author's respects.' In a footnote to *E. albidum* Hooker states: 'I possess from Dr. Boott a very remarkable state of this plant, or a distinct species, from Vermont, U.S., *E. bracteatum* Boott, mst. The leaves are lanceolate, and taper gradually into the foot-stalk. The flower is small ($\frac{3}{4}$ of an inch long), greenish, and there is a bractea on the peduncle, indicating a disposition to bear more than one flower. Only one specimen was found.' This Hooker connection provided hope that the type may in fact be in existence in the Kew herbarium, and a search through all the *Erythronium* folders duly revealed a specimen labelled *Erythronium bracteatum* Bigelow; the reverse of the sheet reads: 'Discovered on Camel-Rump's [presumably a mistake for Camel's Hump!] mountain near Waterbury-Vermont-U.S.A. July 14. 1817 [signed] Francis Boott. This was the only specimen I found in flower & this was faded. I was too late to find it in perfection. An accurate drawing of this was made by my friend Mrs Hardcastle which I sent to Sir J. E. Smith. [initialled] F.B.'

The Kew specimen consists of two leaves without a rootstock, and an inflorescence bearing one flower; the scape does bear a bract just beneath the flower, as observed by Bigelow, Beck and Hooker. The venation of the leaves, and of the perianth segments, is typical of *Erythronium americanum* and in the absence of any strong contenders it seems likely that *E. bracteatum* is an aberrant variant of this. The flower is not in good condition so that the internal features are difficult to observe, but it is smaller than that of *E. americanum* with segments under 2 cm in length. The flowering time, given as July 17th by F. Boott, is extraordinarily late for this species and it seems possible that something had happened to this particular individual, such as being buried by a slip of soil or rocks, or beneath a very late-melting snowpatch, causing its abnormal flowering time and morphological appearance; even the 'bract' is not very convincing and appears to be somewhat deformed.

On the evidence available I am inclined to agree with Homer

D. House, that *E. bracteatum* is a synonym of *E. americanum* Ker-Gawler.

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LITERATURE CITED

- BECK, L. C. 1833. Botany of the Northern and Midland States. Webster and Skinners, Albany, NY.
- BIGELOW, J. 1824. Florula Bostoniensis. Ed II. Cummings, Hilliard & Co., Boston, MA.
- HOOKE, W. J. 1839. Flora Boreali-americana. G. Bohn, London.
- HOUSE, H. D. 1924. Annotated list of the ferns and flowering plants of New York State. New York State Mus. Bull. 254: 5-759.

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